



RECEIVED
FEB 03 2003
TECH CENTER 160012900

SEQUENCE LISTING

<110> Polverino, Anthony J.
Luethy, Roland

<120> Secreted Epithelial Colon Stromal-1 Molecules and Uses
Thereof

<130> 00-450

<140>

<141>

<160> 22

<170> PatentIn Ver. 2.0

<210> 1

<211> 744

<212> DNA

<213> Mus musculus

<220>

<221> CDS

<222> (38)..(274)

<400> 1

gcttctctccc taggcgtgag actccggctc cttcact atg aga ctt cta gcc ctt 55
Met Arg Leu Leu Ala Leu
1 5

2 tcc ggt ctg ctc tgc atg ctg ctc ctc tgt ttc tgc att ttc tcc tca 103
Ser Gly Leu Leu Cys Met Leu Leu Leu Cys Phe Cys Ile Phe Ser Ser
10 15 20

gaa ggg aga aga cat cct gcc aag tcc ttg aaa ctc agg cgc tgc tgt 151
Glu Gly Arg Arg His Pro Ala Lys Ser Leu Lys Leu Arg Arg Cys Cys
25 30 35

cac cta tct cct aga tcc aag ctg aca acc tgg aaa gga aac cac aca 199
His Leu Ser Pro Arg Ser Lys Leu Thr Thr Trp Lys Gly Asn His Thr
40 45 50

agg ccc tgc aga ctc tgc aga aac aag cta cca gtc aag tca tgg gtg 247
Arg Pro Cys Arg Leu Cys Arg Asn Lys Leu Pro Val Lys Ser Trp Val
55 60 65 70

gtg cct ggg gct ctc cca cag ata tag ggcctcctcc gccagatga 294
Val Pro Gly Ala Leu Pro Gln Ile
75

agcgttgatg cccagatgtg gagacaccag aagcatacac actatgttgc cttgccctt 354

gccaatgagc tgtgacactg gaatgcttca cttcagacat cagggcggat ggattgcaga 414

attccaagtc ctcattccaa aggtgtcacc aaccttcaga gtcactaagg tccaggctca 474

gccacaagt caccatggct cctccagagt aaaagtccaa gattccacct gtgggagcta 534
 cagatccaga gactttcaag ctgactagag tgcagagaag caagacctca gtgtgatcag 594
 ccgagactac agcatcttgg gaaccctcag tcagcccca acccctaaca cttaccact 654
 ggtotccaaa ccaacacctg taacttcta atgaaatcat caggaggata ccaaagaaa 714
 taaaccataa atcagcatac aactaaaaa 744

<210> 2
 <211> 78
 <212> PRT
 <213> Mus musculus

<400> 2
 Met Arg Leu Leu Ala Leu Ser Gly Leu Leu Cys Met Leu Leu Leu Cys
 1 5 10 15
 Phe Cys Ile Phe Ser Ser Glu Gly Arg Arg His Pro Ala Lys Ser Leu
 20 25 30
 Lys Leu Arg Arg Cys Cys His Leu Ser Pro Arg Ser Lys Leu Thr Thr
 35 40 45
 Trp Lys Gly Asn His Thr Arg Pro Cys Arg Leu Cys Arg Asn Lys Leu
 50 55 60
 Pro Val Lys Ser Trp Val Val Pro Gly Ala Leu Pro Gln Ile
 65 70 75

<210> 3
 <211> 54
 <212> PRT
 <213> Mus musculus

<400> 3
 Arg Arg His Pro Ala Lys Ser Leu Lys Leu Arg Arg Cys Cys His Leu
 1 5 10 15
 Ser Pro Arg Ser Lys Leu Thr Thr Trp Lys Gly Asn His Thr Arg Pro
 20 25 30
 Cys Arg Leu Cys Arg Asn Lys Leu Pro Val Lys Ser Trp Val Val Pro
 35 40 45
 Gly Ala Leu Pro Gln Ile
 50

<210> 4
 <211> 806
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> (29)..(274)

<400> 4
 ggaacgaggg aaaatctgcc ttctcacc atg agg ctt cta gtc ctt tcc agc 52
 Met Arg Leu Leu Val Leu Ser Ser
 1 5

ctg ctc tgt atc ctg ctt ctc tgc ttc tcc atc ttc tcc aca gaa ggg 100
 Leu Leu Cys Ile Leu Leu Cys Phe Ser Ile Phe Ser Thr Glu Gly
 10 15 20

aag agg cgt cct gcc aag gcc tgg tca ggc agg aga acc agg ctc tgc 148
 Lys Arg Arg Pro Ala Lys Ala Trp Ser Gly Arg Arg Thr Arg Leu Cys
 25 30 35 40

tgc cac cga gtc cct agc ccc aac tca aca aac ctg aaa gga cat cat 196
 Cys His Arg Val Pro Ser Pro Asn Ser Thr Asn Leu Lys Gly His His
 45 50 55

gtg agg ctc tgt aaa cca tgc aag ctt gag cca gag ccc cgc ctt tgg 244
 Val Arg Leu Cys Lys Pro Cys Lys Leu Glu Pro Glu Pro Arg Leu Trp
 60 65 70

gtg gtg cct ggg gca ctc cca cag gtg tag cactcccaaa gcaagactcc 294
 Val Val Pro Gly Ala Leu Pro Gln Val
 75 80

agacagcgga gaacctcatg cctggcacct gaggtacca gcagcctcct gtctcccctt 354
 tcagccttca cagcagttag ctgcaatggt ggagggcttc atctcgggct gcaaggaccc 414
 tgggaaagtt ccagaaactcc acgtccttgt ctcaattgtg ccatcaactt tcagagctat 474
 catgagccaa cctcacccca cagggcctca gtcgccacca tgtgggcctc tccagtgc 534
 accaccgagc attccaccat gaccggtcac agctacaaat ccagagacca tcaatcctgc 594
 tagagtgcag ggtggcaagc acccaagggg ggctgaccaa gactgcagag tctcctccat 654
 cttcaggtcc attcagcctc ctggcattta actaccagca tccagtgggc cccaaggaat 714
 cccttcctag cctcctgaca tgagtctgct ggaaagagca tccaaacaaa caagtaataa 774
 ataaataaat aaactcaatg cagacacaaa aa 806

<210> 5
 <211> 81
 <212> PRT
 <213> Homo sapiens

<400> 5
 Met Arg Leu Leu Val Leu Ser Ser Leu Leu Cys Ile Leu Leu Leu Cys
 1 5 10 15

Phe Ser Ile Phe Ser Thr Glu Gly Lys Arg Arg Pro Ala Lys Ala Trp
20 25 30

Ser Gly Arg Arg Thr Arg Leu Cys Cys His Arg Val Pro Ser Pro Asn
35 40 45

Ser Thr Asn Leu Lys Gly His His Val Arg Leu Cys Lys Pro Cys Lys
50 55 60

Leu Glu Pro Glu Pro Arg Leu Trp Val Val Pro Gly Ala Leu Pro Gln
65 70 75 80

Val

<210> 6

<211> 57

<212> PRT

<213> Homo sapiens

<400> 6

Lys Arg Arg Pro Ala Lys Ala Trp Ser Gly Arg Arg Thr Arg Leu Cys
1 5 10 15

Cys His Arg Val Pro Ser Pro Asn Ser Thr Asn Leu Lys Gly His His
20 25 30

Val Arg Leu Cys Lys Pro Cys Lys Leu Glu Pro Glu Pro Arg Leu Trp
35 40 45

Val Val Pro Gly Ala Leu Pro Gln Val
50 55

<210> 7

<211> 77

<212> PRT

<213> Rattus norvegicus

<400> 7

Met Arg Leu Leu Thr Leu Ser Gly Leu Phe Phe Met Leu Phe Leu Cys
1 5 10 15

Leu Cys Val Leu Ser Ser Glu Gly Arg Lys Arg Pro Ala Lys Phe Pro
20 25 30

Lys Leu Arg Pro Arg Cys His Leu Ser Pro Arg Ser Lys Pro Ile Thr
35 40 45

Trp Lys Gly Asn His Thr Arg Pro Cys Arg Pro Cys Arg Lys Leu Glu
50 55 60

Ser Asn Ser Trp Val Val Pro Gly Ala Leu Pro Gln Ile
65 70 75

<210> 8

<211> 4159
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (160)..(169)

<220>
<221> unsure
<222> (3884)..(3893)

<220>
<221> exon
<222> (1)..(69)

<220>
<221> exon
<222> (2627)..(2725)

<220>
<221> exon
<222> (4079)..(4159)

<400> 8
atg agg ctt cta gtc ctt tcc agc ctg ctc tgt atc ctg ctt ctc tgc 48
ttc tcc atc ttc tcc aca gaa ggtagggcag cccccagggt gcagatccct 99
gagcaggatt tcagcatctg ggaagactct gatcaggatt tgttggaggg caggccttgg 159
nnnnnnnnnn cgcgcgtact tccagccccg tgggtgaagac gaaagagggc tctttctcct 219
gaacctatag gtttggggct caggactgcc tgcaggtggc ttgggggttc cattcacagc 279
ccctgcaccc ccaaatacat acccagccta agtaaagtgg tgtgttcgcc atgcaaacac 339
acatacaacc tctcagctag attactgtgc ttaagtctta cctatctaga atttctggag 399
ccattctctt gtacttgtgt catgcttgga acagagtaaa ttagtggttg gcaaatgaat 459
acattaatta gtagaccatc taagtctgaa catccccaaa cctcatgccc agaaaatata 519
catgagcagc tgaaatgaag gtgtgtgtgg tagggaggtg gggatatgtt atgcatgttt 579
agaaggggac accatctttt tacctctata gatatgaata tttagctctc ttgccctttt 639
ttcttttttc tttttttttt ttttttgag atggagtctt gctctgtcac ccaggctgga 699
gtgcagtggc gctatctcag ctcaactgcaa tctccgcctc ctgggttcaa gcaattctct 759
gcctcagcct cccaagtagc tgagattaca ggtgccacc accaagccca gctaattttt 819
gtatttttag tacagacagg ttccaccatc ttggccaggc tgggtcttgaa ctctaacct 879
cgtaatcctc ccacctcggc ctcccaaagt gctgggatta caggcgtgag ccaccatgcc 939

tggctgcctt tcttgattca gatagctgag tgtttcaatc cttttttctc ttgtctaacc 999
 ctctagaaac tgctacatt ttttttttgt tttagtgggt atggttactc aaacttttgg 1059
 gtgggggggag ctggagctat agaaatatat aaagagaaga aaaacactca attccatgat 1119
 tcaagagtag ccatgttcaa ctttttggtt atttccttgc atgtagaatt tttaaaaatt 1179
 aattgatgta cctatatgtt caagggtata tcttttttat ttatcactat atatattgtt 1239
 ataatcacc cccaaatgctta tgattgaaga tttcttgga gcatttaca cccagtgtca 1299
 gcagcagcca tctctgagta gtgggattat aacaagtgtt tgttttaca agtttctgcg 1359
 atgaaaatgt cccacatata taataaggaa aacagtgtt agaattcctc ataaacacag 1419
 cccgtgacat gcaatttatc agacctctat ttttgacat gttggagggt gccagtgata 1479
 ccctagtgc aattaaatga ggatagatac cttcccccatt aaagtctcct atccatttag 1539
 gactatctgt agcaaactct tgaagtagca ttaatcaact aatattttca ggtataactt 1599
 gctacaagtg aacgtactat gatgaattta catgcttaga ctttagata gttcacaatt 1659
 gtgtgctttt ctttttttga agcaagatct tgctctcttg cccaggctcg agtgagtggt 1719
 catgaccacg gctcagtgc ggcttgactt ccagggtcga agcaatactc gcacctcagg 1779
 ttttcagta gctgggaaaa cagggtgcga ccacaatgcc ctgctaattt ttaaaatttt 1839
 ttgcagagac gaggtctctc taagttgcc aggtgtgtct tgaacttctg gactcaagcc 1899
 atcctccac cttggcctcc cagagtgtca ggatcacagg catgagccac cacacctggc 1959
 ctactttgca ctttttaatt atgtggtaaa aggtatatat gtacataaag tatgtccttt 2019
 attcaggctt tttttctttt tttctttttt ttattttttt gagacgaagt ttttgctctt 2079
 gttgtccagg ctggagtgt atggcatgct cttggctcac cacaacctcc gcctcccggt 2139
 ttcaagtgat tctcctgcct caacctcctg agtagctggg attacaggca tgcaccaaca 2199
 tgccaggctg attttgtatt tttagtagag atggggtttc tccatgttgg tcaggctggt 2259
 ctggaacact cgacctcaag tgatccgccc acctcagcct cccaaagagc taggattaca 2319
 ggcagtagcc accacacca gctcagggtt tttttctta ggctagattg ccaaggggag 2379
 aattattatg tcaaagaaac tacttattgg acaggaatct gaaaaggatg tgttttgggg 2439
 ccatgtgtct cccaacattg ttatttctga aaagtaaact acaacaaggc cactctttc 2499
 cctaggacct ctgtagcct ggctcatcct gagtttctct ggataaatat tctgagccc 2559
 tgtgccttgg aaggggaagc tcactcacag acaagcccac taaagacagt ctctcttct 2619
 ttgtgtc cac cct cag gga aga ggc gtc ctg cca agg cct ggt cag gca 2668

D²
 CNF

gga gaa cca ggc tct gct gcc acc gag tcc cta gcc cca act caa caa 2716
 acc tga aag gtaagtaccc ccacctcgtc cagactgtgg ggcagaagtt 2765
 ctacagtggc catgggacca gccacacaca ctgatacagcc cccacccatg gctggcatca 2825
 ggctctggct gggaggacat ctttgttttg ttgattaatt tgttgactcc cccccaaaag 2885
 tcaacaaatt aatcatttta aactgaatac attctgccat ggaaaaaag caggatgcaa 2945
 ttagcagatg ttgtgtggaa acacacttac tttaggtgga aggtgtctga gcaggtgaca 3005
 tttatgagac ctggctcatt tatgagccag gagcctggct gaggcctgtg gaggtggggc 3065
 atgcaggcag aggaggcagc aagggtgaag ggcaagagtg gggatatgaa gacagatggc 3125
 agcagggctt gagaggtact ccagaagct aaggaccaa gctgcctgtg aaccctgtgg 3185
 acctggggca cagatcagca tgcaggtcac cagcagggga gtgggcctga gggccagag 3245
 agccatagct tggcaggaga taaggcagcc ccagagatgc cagcaggcag catccaggct 3305
 gcatgaccag aacgaggccc agaagagcaa ggctgccctc tccctgaggc ctggggacac 3365
 tgggaggcct gtggcggaca ggcccaagct caggagggct gcgggcaccc agttccctgc 3425
 acaggggctg caggcccaga gcagatatc actggagttg ccagcccag gtggaagggt 3485
 caggctgctg gagcttgggt agggcaggca gatccccaag gggagactgt ggaccctgag 3545
 tcagacagcc tgacaccaac ctggggctcc tgccatgaact ctgcagcccc agtgcccact 3605
 ctcaagaggc tgaggaggtc ccggccccac ttgtctctct gcggccatgg cccatggggc 3665
 ccatgaccag cgccggagcc tccatgcctt tcccagctac caaggggatg ctcagctgtg 3725
 atgcaggaga gggatagagg gaggaagcaa gacagcatga ctccagccgc agaccttctc 3785
 ccggagatgc tgacagccct ttcttccaaa ctggcatcac acccagccgg ccaggataaa 3845
 aataaccagc tcgtcttcac cacgggctga aggatccnn nnnnnnnca cgaaaagccc 3905
 cttctggggc tccagggaaa agcataagat ctaattcttg ctttgaaatt tttttttaa 3965
 tgtgtttgaa aatgcaactt aattgtgttt tcctctctct cccacaacc tggctctgac 4025
 ctgcccattt tcctgtcctt gtccctcttg tctactcatt gctcctcca gga cat 4081
 cat gtg agg ctc tgt aaa cca tgc aag ctt gag cca gag ccc cgc ctt 4129
 tgg gtg gtg cct ggg gca ctc cca cag gtg 4159

<210> 9
 <211> 23
 <212> PRT

<213> Homo sapiens

<400> 9

Met Arg Leu Leu Val Leu Ser Ser Leu Leu Cys Ile Leu Leu Leu Cys
1 5 10 15

Phe Ser Ile Phe Ser Thr Glu
20

<210> 10

<211> 30

<212> PRT

<213> Homo sapiens

<400> 10

Gly Lys Arg Arg Pro Ala Lys Ala Trp Ser Gly Arg Arg Thr Arg Leu
1 5 10 15

Cys Cys His Arg Val Pro Ser Pro Asn Ser Thr Asn Leu Lys
20 25 30

<210> 11

<211> 28

<212> PRT

<213> Homo sapiens

<400> 11

Gly His His Val Arg Leu Cys Lys Pro Cys Lys Leu Glu Pro Glu Pro
1 5 10 15

Arg Leu Trp Val Val Pro Gly Ala Leu Pro Gln Val
20 25

<210> 12

<211> 11

<212> PRT

<213> Human immunodeficiency virus type 1

<400> 12

Tyr Gly Arg Lys Lys Arg Arg Gln Arg Arg Arg
1 5 10

<210> 13

<211> 15

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: internalizing
domain derived from HIV tat protein

<400> 13

Gly Gly Gly Gly Tyr Gly Arg Lys Lys Arg Arg Gln Arg Arg Arg

1

5

10

15

<210> 14

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: PCR primer
corresponding to human SECS-1

<400> 14

cccaactcaa caaacctgaa a

21

<210> 15

<211> 17

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: PCR primer
corresponding to human SECS-1

<400> 15

gggaccactg gatgctg

17

<210> 16

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: PCR primer
corresponding to murine SECS-1

<400> 16

actccggctc cttcactatg a

21

<210> 17

<211> 23

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: PCR primer
corresponding to murine SECS-1

<400> 17

atgtgggcat catcaacgct tta

23

<210> 18

<211> 42

<212> DNA
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: PCR primer
corresponding to human SECS-1

<400> 18
aaataacata tgaaacgtcg tccagctaaa gcctggtcag gc

42

<210> 19
<211> 34
<212> DNA
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: PCR primer
corresponding to human SECS-1

<400> 19
ggtgatggtg atggtgcacc tgtgggagtg cccc

34

<210> 20
<211> 37
<212> DNA
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: PCR primer
corresponding to human SECS-1

<400> 20
gtggtagtg tagtggtagt aactatccta ggtatatt

37

<210> 21
<211> 11
<212> PRT
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: SECS-1 antigen

<400> 21
Cys Trp Val Val Pro Gly Ala Leu Pro Gln Ile
1 5 10

<210> 22
<211> 81
<212> PRT
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: artificial Secs-1

polypeptide sequence generated from an amino acid sequence
comparison of the human, murine, and rat Secs-1 polypeptides

<220>
<221> UNSURE
<222> (5)
<223> "Xaa" can be any naturally occurring amino acid

<220>
<221> UNSURE
<222> (8)
<223> "Xaa" can be any naturally occurring amino acid

<220>
<221> UNSURE
<222> (10)
<223> "Xaa" can be any naturally occurring amino acid

<220>
<221> UNSURE
<222> (11)
<223> "Xaa" can be any naturally occurring amino acid

<220>
<221> UNSURE
<222> (12)
<223> "Xaa" can be either methionine or isoleucine

D2
auth
<220>
<221> UNSURE
<222> (14)
<223> "Xaa" can be any naturally occurring amino acid

<220>
<221> UNSURE
<222> (17)
<223> "Xaa" can be any naturally occurring amino acid

<220>
<221> UNSURE
<222> (18)
<223> "Xaa" can be either cysteine or serine

<220>
<221> UNSURE
<222> (19)
<223> "Xaa" can be either isoleucine or valine

<220>
<221> UNSURE
<222> (20)
<223> "Xaa" can be any naturally occurring amino acid

<220>
<221> UNSURE
<222> (22)
<223> "Xaa" can be either serine or threonine

<220>
<221> UNSURE
<222> (25)
<223> "Xaa" can be either arginine or lysine

<220>
<221> UNSURE
<222> (26)
<223> "Xaa" can be either arginine or lysine

<220>
<221> UNSURE
<222> (27)
<223> "Xaa" can be either histidine or arginine

<220>
<221> UNSURE
<222> (31)
<223> "Xaa" can be any naturally occurring amino acid

<220>
<221> UNSURE
<222> (32)
<223> "Xaa" can be any naturally occurring amino acid

D² ✓
<220>
<221> UNSURE
<222> (33)
<223> "Xaa" can be any naturally occurring amino acid

<220>
<221> UNSURE
<222> (34)
<223> "Xaa" can be any naturally occurring amino acid

<220>
<221> UNSURE
<222> (36)
<223> "Xaa" can be any naturally occurring amino acid

<220>
<221> UNSURE
<222> (37)
<223> "Xaa" can be any naturally occurring amino acid or may be absent

<220>
<221> UNSURE
<222> (38)
<223> "Xaa" can be any naturally occurring amino acid or may be absent

<220>
<221> UNSURE
<222> (39)
<223> "Xaa" can be any naturally occurring amino acid or may be absent

<220>

<221> UNSURE
<222> (40)
<223> "Xaa" can be any naturally occurring amino acid

<220>
<221> UNSURE
<222> (43)
<223> "Xaa" can be any naturally occurring amino acid

<220>
<221> UNSURE
<222> (44)
<223> "Xaa" can be any naturally occurring amino acid

<220>
<221> UNSURE
<222> (46)
<223> "Xaa" can be any naturally occurring amino acid

<220>
<221> UNSURE
<222> (47)
<223> "Xaa" can be any naturally occurring amino acid

<220>
<221> UNSURE
<222> (48)
<223> "Xaa" can be any naturally occurring amino acid

D²
al ✓
<220>
<221> UNSURE
<222> (49)
<223> "Xaa" can be any naturally occurring amino acid

<220>
<221> UNSURE
<222> (50)
<223> "Xaa" can be any naturally occurring amino acid

<220>
<221> UNSURE
<222> (51)
<223> "Xaa" can be either threonine or asparagine

<220>
<221> UNSURE
<222> (52)
<223> "Xaa" can be any naturally occurring amino acid

<220>
<221> UNSURE
<222> (55)
<223> "Xaa" can be either asparagine or histidine

<220>
<221> UNSURE
<222> (57)

<223> "Xaa" can be any naturally occurring amino acid

<220>

<221> UNSURE

<222> (59)

<223> "Xaa" can be any naturally occurring amino acid

<220>

<221> UNSURE

<222> (61)

<223> "Xaa" can be either arginine or lysine

<220>

<221> UNSURE

<222> (62)

<223> "Xaa" can be any naturally occurring amino acid

<220>

<221> UNSURE

<222> (64)

<223> "Xaa" can be either arginine or lysine

<220>

<221> UNSURE

<222> (65)

<223> "Xaa" can be any naturally occurring amino acid or may be absent

<220>

<221> UNSURE

<222> (66)

<223> "Xaa" can be any naturally occurring amino acid

<220>

<221> UNSURE

<222> (67)

<223> "Xaa" can be any naturally occurring amino acid

<220>

<221> UNSURE

<222> (68)

<223> "Xaa" can be any naturally occurring amino acid

<220>

<221> UNSURE

<222> (69)

<223> "Xaa" can be any naturally occurring amino acid

<220>

<221> UNSURE

<222> (70)

<223> "Xaa" can be any naturally occurring amino acid

<220>

<221> UNSURE

<222> (71)

<223> "Xaa" can be any naturally occurring amino acid

<220>

<221> UNSURE

<222> (81)

<223> "Xaa" can be either isoleucine or valine

<400> 22

Met Arg Leu Leu Xaa Leu Ser Xaa Leu Xaa Xaa Xaa Leu Xaa Leu Cys
1 5 10 15

Xaa Xaa Xaa Xaa Ser Xaa Glu Gly Xaa Xaa Xaa Pro Ala Lys Xaa Xaa
20 25 30

Xaa Xaa Arg Xaa Xaa Xaa Xaa Xaa Cys His Xaa Xaa Pro Xaa Xaa Xaa
35 40 45

Xaa Xaa Xaa Xaa Lys Gly Xaa His Xaa Arg Xaa Cys Xaa Xaa Cys Xaa
50 55 60

Xaa Xaa Xaa Xaa Xaa Xaa Xaa Trp Val Val Pro Gly Ala Leu Pro Gln
65 70 75 80

Xaa